

IAP7 Rec'd PCT/PTO 28 AUG 2006

PATENT

Docket No.: 20747/300 (ARDBW/P2990US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: MILLAR, Robert Peter)
U. S. Serial No: 10/552,110)
PCT International)
Application No: PCT/GB2004/001478)
Filed: 05 April 2004)
For : GONADOTROPIN RELEASING)
HORMONE ANALOGUES)
CONJUGATES WITH STEROID)
HORMONES)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop: PCT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, applicant hereby brings to the attention of the United States Patent and Trademark Office the enclosed documents listed on the attached PTO/SB/08 form.

Pursuant to 37 C.F.R. § 1.98(a)(2)(ii), copies of the cited U.S. Patents (i.e., Reference Cite Nos. 1-45) are not enclosed. Copies of all other listed references (i.e., Reference Cite Nos. 46-110) are enclosed herewith.

Pursuant to 37 CFR § 1.97(b)(3), no fee is required. Should it be determined that a fee is required, the Commissioner is authorized to charge any additional fee to Deposit Account No. 14-1138.

Respectfully submitted,

Date: August 25, 2006

Edwin V. Merkel
Edwin V. Merkel
Registration No. 40,087

NIXON PEABODY LLP

Clinton Square, P.O. Box 31051

Rochester, New York 14603-1051

Telephone: (585) 263-1128

Facsimile: (585) 263-1600

Certificate of Mailing - 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents P.O. Box 1450
Alexandria, VA 22313-1450, on the date below.

Date 8/25/06 Mary Burke
Mary Burke

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	
				10/552,110	
				Filing Date	
				April 5, 2004	
				First Named Inventor	
		Robert Peter Millar			
Art Unit		To Be Assigned			
Examiner Name		To Be Assigned			
Sheet	1	of	6	Attorney Docket Number	
				20747/300 (ARDBW/P2990US)	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
	1	US-3,813,382	05-28-1974	McKinley et al.	
	2	US-3,843,065	10-22-1974	Horstman et al.	
	3	US-3,849,389	11-19-1974	Shields	
	4	US-3,855,199	12-17-1974	Foell et al.	
	5	US-3,886,135	05-27-1975	McKinley et al.	
	6	US-3,890,437	06-17-1975	Foell et al.	
	7	US-3,892,723	07-01-1975	McKinley et al.	
	8	US-3,896,104	07-22-1975	McKinley et al.	
	9	US-3,901,872	08-26-1975	McKinley et al.	
	10	US-3,914,412	10-21-1975	Gendrich et al.	
	11	US-3,915,947	10-28-1975	Shields	
	12	US-3,929,759	12-30-1975	Foell	
	13	US-3,937,695	02-10-1976	Sarantakis	
	14	US-3,953,416	04-27-1976	Folkers et al.	
	15	US-3,974,135	08-10-1976	Folkers et al.	
	16	US-4,010,125	03-01-1977	Schally et al.	
	17	US-4,018,914	04-19-1977	Johnson	
	18	US-4,022,759	05-10-1977	Tinney et al.	
	19	US-4,022,760	05-10-1977	Tinney	
	20	US-4,022,761	05-10-1977	Tinney et al.	
	21	US-4,024,248	05-17-1977	Konig et al.	
	22	US-4,034,082	07-05-1977	Johnson et al.	
	23	US-4,072,668	02-07-1978	Amoss et al.	
	24	US-4,075,189	02-21-1978	Tinney	
	25	US-4,075,192	02-21-1978	Nicolaidis	
	26	US-4,086,219	04-25-1978	Wittle et al.	
	27	US-4,101,538	07-18-1978	Campbell	
	28	US-4,124,577	11-07-1978	Tinney et al.	
	29	US-4,124,578	11-07-1978	Lapidus	
	30	US-4,143,133	03-06-1979	Foell et al.	
	31	US-4,234,571	11-18-1980	Nestor et al.	
	32	US-4,253,997	03-03-1981	Sarantakis	
	33	US-4,292,313	09-29-1981	Vale, Jr. et al.	
	34	US-4,341,767	07-27-1982	Nestor et al.	
	35	US-4,504,414	03-12-1985	Folkers et al.	
	36	US-4,677,193	06-30-1987	Rivier et al.	
	37	US-4,705,778	11-10-1987	Almquist et al.	
	38	US-5,064,939	11-12-1991	Rivier et al.	
	39	US-5,371,070	12-06-1994	Koerber et al.	
	40	US-5,413,990	05-09-1995	Haviv et al.	
Examiner Signature				Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at 222.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known		
				Application Number		10/552,110
				Filing Date		April 5, 2004
				First Named Inventor		Robert Peter Millar
				Art Unit		To Be Assigned
Examiner Name		To Be Assigned				
Sheet	2	of	6	Attorney Docket Number		20747/300 (ARDBW/P2990US)

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
	41	US-5,502,035	03-26-1996	Haviv et al.	
	42	US-5,633,248	05-27-1997	Kato et al.	
	43	US-5,756,497	05-26-1998	Bell et al.	
	44	US-6,156,731	12-05-2000	Grass et al.	
	45	US-6,191,115	02-20-2001	Haviv et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	46	WO 91/14704	10-03-1991	Applied Research Systems ARS Holding N.V.		
	47	WO 93/03058	02-18-1993	University Technologies International Inc.		
	48	WO 94/28015	12-08-1994	Biotech Australia Pty. Limited		
	49	WO 95/04541	02-16-1995	Abbott Laboratories		
	50	WO 95/28405	10-26-1995	Takeda Chemical Industries, Ltd.		
	51	WO 96/24597	08-15-1996	Takeda Chemical Industries, Ltd.		
	52	WO 97/41126	11-06-1997	Takeda Chemical Industries, Ltd.		
	53	WO 97/44041	11-27-1997	Merck & Co., Inc.		
	54	WO 97/44321	11-27-1997	Merck & Co., Inc.		
	55	WO 97/44339	11-27-1997	Merck & Co., Inc.		
	56	WO 98/03632	01-29-1998	Yale University		
	57	WO 98/55505	12-10-1998	Laboratoire Theramex		
	58	WO 99/21557	05-06-1999	Merck & Co., Inc.		
	59	WO 99/33831	07-08-1999	Takeda Chemical Industries, Ltd.		
	60	WO 99/41251	08-19-1999	Merck & Co., Inc.		
	61	WO 99/41252	08-19-1999	Merck & Co., Inc.		
	62	WO 99/46283	09-16-1999	Zealand Pharmaceuticals A/S		
	63	WO 00/00493	01-06-2000	Takeda Chemical Industries, Ltd.		
	64	WO 00/53178	09-14-2000	Merck & Co., Inc.		
	65	WO 00/56739	09-28-2000	Takeda Chemical Industries, Ltd.		
	66	WO 01/78780 A1	10-25-2001	Takeda Chemical Industries, Ltd.		X
	67	WO 02/02533 A1	10-01-2002	Yamanouchi Pharmaceutical Co., Ltd.		X
	68	WO 03/015820 A1	02-27-2003	Takeda Chemical Industries, Ltd.		X
	69	EP 0 081 877 A1	06-22-1983	Coy et al.		
	70	EP 0 192 492 A2	08-27-1986	The Salk Institute for Biological Studies		
	71	GB 2 310 660 A	09-03-1997	Merck & Co., Inc.		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at 222.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	
				10/552,110	
				Filing Date	
				April 5, 2004	
				First Named Inventor	
		Robert Peter Millar			
Group Art Unit		To Be Assigned			
Examiner Name		To Be Assigned			
Sheet	3	of	6	Attorney Docket Number	20747/300 (ARDBW/P2990US)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	72	ALSENZ et al., "Oral Absorption of Peptides Through the Cobalamin (Vitamin B12) Pathway in the Rat Intestine," <i>Pharmaceutical Research</i> 17(7):825-832 (2000)	
	73	ANDERSON, "Hormonal Contraception in the Male," <i>British Medical Bulletin</i> 56(3):717-728 (2000)	
	74	ARÁNYI, "A Szteroid Hormonok Hatásainak Szerkezeti Alapjai," <i>Biológia</i> 30:145-169 (1982)	X
	75	ARÁNYI, "Dependence of Rate Constants of the Glucocorticoid Hormone-Receptor Interaction on Steroid Structure," <i>J. Steroid Biochem.</i> 17:137-141 (1982)	
	76	BURTON & WESTPHAL, "Steroid Hormone-Binding Proteins in Blood Plasma," <i>Metabolism</i> 21(3):253-276 (1972)	
	77	CHRISTIN-MAITRE et al., "Effect of Gonadotrophin-Releasing Hormone (GnRH) Antagonist During the LH Surge in Normal Women and During Controlled Ovarian Hyperstimulation," <i>Clin. Endocrinol.</i> 52:721-726 (2000)	
	78	CUNNINGHAM et al., "Steroid Structural Requirements for High Affinity Binding to Human Sex Steroid Binding Protein (SBP)," <i>Steroids</i> 38(3):243-262 (1981)	
	79	DANFORTH et al., "Intermittent GNRH Antagonist Plus Progestin Contraception Conserving Tonic Ovarian Estrogen Secretion and Reducing Progestin Exposure," <i>Contraception</i> 41(6):623-631 (1990)	
	80	DITKOFF et al., "The Gonadotropin-Releasing Hormone Antagonist (Nal-Glu) Acutely Blocks the Luteinizing Hormone Surge but Allows for Resumption of Folliculogenesis in Normal Women," <i>Am. J. Obstet. Gynecol.</i> 165(6 Pt 1):1811-1817 (1991)	
	81	DUAX & GRIFFIN, "Molecular Structure, Receptor Binding and Activity of Sex Steroids," <i>Frontiers in Drug Research</i> , Alfred Benzon Symposium, 28:62-74 (1990)	
	82	DUAX & GRIFFIN, "Steroid Hormone Structure, Receptor Binding and Activity: Empirical Drug Design," <i>Structure-Based Drug Design</i> , P.W. Codding (ed.), pp.1-14 (1998)	
	83	DUAX & GRIFFIN, "The Structure and Receptor Binding of Steroid Hormones," <i>Advances in Drug Research</i> 18:115-138 (1989)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/552,110
				Filing Date	April 5, 2004
				First Named Inventor	Robert Peter Millar
				Group Art Unit	To Be Assigned
				Examiner Name	To Be Assigned
Sheet	4	of	6	Attorney Docket Number	20747/300 (ARDBW/P2990US)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	84	DUNCAN et al., "A New Reagent Which May Be Used to Introduce Sulfhydryl Groups into Proteins, and Its Use in the Preparation of Conjugates for Immunoassay," <i>Anal. Biochem.</i> 132:68-73 (1983)	
	85	DUTTA & FURR, "Luteinizing Hormone Releasing Hormone (LHRH) Analogues," <i>Annual Reports in Medicinal Chemistry-20</i> , Chapter 21, pp.203-214 (1985)	
	86	FRASER et al., "Effect of Late Follicular Phase Administration of Antide on Ovulation and Inhibin Secretion in Macaques," <i>Contraception</i> 44(6):667-676 (1991)	
	87	FRASER et al., "Suppression of Luteal Function by a Luteinizing Hormone-Releasing Hormone Antagonist During the Early Luteal Phase in the Stumptailed Macaque Monkey and the Effects of Subsequent Administration of Human Chorionic Gonadotropin," <i>Endocrinology</i> 121(2):612-618 (1987)	
	88	GOULET, "Gonadotropin Releasing Hormone Antagonists," <i>Annual Reports in Medicinal Chemistry-30</i> , Chapter 18, pp.169-178 (1995)	
	89	KENIGSBERG & HODGEN, "Ovulation Inhibition by Administration of Weekly Gonadotropin-Releasing Hormone Antagonist," <i>J. Clin. Endocrinol. Metabol.</i> 62(4):734-738 (1986)	
	90	KLOSTERMAN et al., "Cortisol Levels, Binding, and Properties of Corticosteroid-Binding Globulin in the Serum of Primates," <i>Endocrinology</i> 118(1):424-434 (1986)	
	91	LU et al., "Improved Synthesis of 4-Alkoxybenzyl Alcohol Resin," <i>J. Org. Chem.</i> 46:3433-3436 (1981)	
	92	MATTOX et al., "A Comparison of Procedures for Attaching Steroidal Glucosiduronic Acids to Bovine Serum Albumin," <i>J. Steroid Biochem.</i> 10:167-172 (1979)	
	93	MCEWAN et al., "Synthesis and Biological Activity of Ribose-5'-Carbamate Derivatives of Vitamin B ₁₂ ," <i>Bioconjugate Chem.</i> 10:1131-1136 (1999)	
	94	MICKELSON et al., "Steroid-Protein Interactions. Human Corticosteroid Binding Globulin: Some Physicochemical Properties and Binding Specificity," <i>Biochemistry</i> 20:6211-6218 (1981)	
	95	MILLAR et al., "GnRH and GnRH Analogues: Structure, Actions and Clinical Applications," <i>Hormone Frontier in Gynecology</i> 5(4):77-83 (1998)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known		
				Application Number		10/552,110
				Filing Date		April 5, 2004
				First Named Inventor		Robert Peter Millar
				Group Art Unit		To Be Assigned
Examiner Name		To Be Assigned				
Sheet	5	of	6	Attorney Docket Number		20747/300 (ARDBW/P2990US)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	96	MILLAR et al., "Progress Towards the Development of Non-Peptide Orally-Active Gonadotropin-Releasing Hormone (GnRH) Antagonists: Therapeutic Implications," <i>British Medical Bulletin</i> 56(3):761-772 (2000)	
	97	MILLAR, "Gonadotropin-Releasing Hormones and Their Receptors," <i>Reproductive Medicine: Molecular, Cellular and Genetic Fundamentals</i> , Bart C.J.M. Fauser (Ed.), The Parthenon Publishing Group, New York, Chapter 1, pp.199-223 (2003)	
	98	NESTOR, JR., "Luteinizing Hormone Releasing Hormone Analogs in Control of Fertility and Gonadal Hormone Dependent Disease," <i>Annual Reports in Medicinal Chemistry-23</i> , Chapter 22, pp.211-220 (1988)	
	99	NESTOR, JR., "Potent Gonadotropin Releasing Hormone Antagonists with Low Histamine-Releasing Activity," <i>J. Med. Chem.</i> 35:3942-3948 (1992)	
	100	O'SULLIVAN et al., "Comparison of Two Methods of Preparing Enzyme-Antibody Conjugates: Application of These Conjugates for Enzyme Immunoassay," <i>Analytical Biochemistry</i> 100:100-108 (1979)	
	101	OJASOO et al., "Two Approaches to Structure-Activity Relationships in the Field of Sex-Steroids and Their Analogs," <i>Molecular Structure and Biological Activity of Steroids</i> , Chapter 4, pp.157-207 (1992)	
	102	PAVLOU et al., "Combined Administration of a Gonadotropin-Releasing Hormone Antagonist and Testosterone in Men Induces Reversible Azoospermia without Loss of Libido," <i>J. Clin. Endocrinol. Metabol.</i> 73(6):1360-1369 (1991)	
	103	RAHIMPOUR et al., "Design, Synthesis, and Evaluation of a Long-Acting, Potent Analogue of Gonadotropin-Releasing Hormone," <i>J. Med. Chem.</i> 44:3645-3652 (2001)	
	104	RAYNAUD & OJASOO, "The Relevance of Structure-Affinity Relationships in the Study of Steroid Hormone Action," <i>Steroid Hormone Receptors: Structure and Function</i> , Elsevier Science Publishers B.V., H. Eriksson & J.-A. Gustafsson (Ed.), pp.141-170 (1983)	
	105	RUSSELL-JONES et al., "Synthesis of LHRH Antagonists Suitable for Oral Administration via the Vitamin B ₁₂ Uptake System," <i>Bioconjugate Chem.</i> 6:34-42 (1995)	
	106	SEAL & DOE, "Vertebrate Distribution of Corticosteroid-Binding Globulin and Some Endocrine Effects on Concentration," <i>Steroids</i> 5:827-841 (1965)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	Date Considered
--------------------	-----------------

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.